



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,047	07/08/2003	Takuya Tsujimoto	03500.017384	7568
5514 7590 06/08/2007 FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			EXAMINER POPOVICI, DOV	
			ART UNIT 2625	PAPER NUMBER
			MAIL DATE 06/08/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/614,047		TSUJIMOTO, TAKUYA	
	<b>Examiner</b>		<b>Art Unit</b>	
	Dov Popovici		2625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 7/8/2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/23/03 &amp; 6/22/05</u> .                                  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

The abstract of the disclosure is objected to because it contains two paragraphs. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words.

Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

Art Unit: 2625

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by  
Tsujiimoto (U.S. 6,984,034)

The applied reference has a common inventor with the instant application.  
Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As to claim 1, Tsujiimoto discloses a method for discriminating recording medium for discriminating the kind thereof, comprising the steps of: generating image information containing information corresponding to each of plural pixels included in a specific area on the surface of a recording medium as image information indicating the surface condition of said recording medium; obtaining a first parameter regarding the surface roughness of said recording medium from said image information; obtaining a second parameter regarding the surface configuration of said recording medium from said image information; and discriminating the kind of said recording medium on the basis of said first parameter and said second parameter (see column 12, lines 40-58).

As to claim 2, Tsujiimoto discloses wherein said image information contains the brightness information of each of said plural pixels, and said first parameter is

Art Unit: 2625

obtainable from said brightness information, and relates to the magnitude of unevenness on the surface of said recording medium (see column 12, lines 40-58).

As to claim 3, Tsujimoto discloses wherein said image information contains the brightness information of each of said plural pixels, and said second parameter is obtainable corresponding to the changes in said brightness information along the arrangement of said plural continuous pixels, and relates to the cycle of unevenness on the surface of said recording medium (see column 12, lines 40-58).

As to claim 4, Tsujimoto discloses a method for discriminating recording medium for discriminating the kind thereof, comprising the steps of: generating image information composed by plural pixels corresponding to a specific area on the surface of a recording medium, and containing the brightness information corresponding to each of said plural pixels as image information indicating the surface condition of said recording medium; obtaining a first parameter by statistical process (see column 38, lines 48-63) in accordance with said brightness information; obtaining a second parameter regarding changes in said brightness information along the arrangement of said plural continuous pixels; and discriminating the kind of said recording medium on the basis of said first parameter and said second parameter (see column 38, lines 48-63 and column 31, lines 24-42).

As to claim 5, Tsujimoto discloses wherein said first parameter is either one of the brightness difference between the maximum value and the minimum value of said brightness information, the mean value of said brightness information, and the

Art Unit: 2625

brightness at the peak of histogram prepared from said plural pixels (see column 11, lines 37-55).

As to claim 6, Tsujimoto discloses wherein said mean value of brightness information is either the arithmetic mean value of the maximum value and the minimum Value of said brightness information or the arithmetic mean value of the respective brightness information of said plural pixels (see column 11, lines 37-55).

As to claim 7, Tsujimoto discloses wherein said second parameter is obtainable on the basis of the binary data prepared by binarizing said image information, being either one of the number of inversions of the values of adjacent pixels in said binary data, the run-length coded amount at the time of allocating codes to said binary data in accordance with the run-length coding, and the number of isolated pixels discriminated as isolated pixels on the basis of the values of adjacent pixels on both sides in accordance with said binary data (see column 27, lines 45-46, column 24, lines 1-3, column 23, lines 1-2, column 11, lines 56-58, column 22, lines 45-51).

As to claim 8, Tsujimoto discloses wherein a threshold value used for said binarizing process is either the mean value of said brightness information or the brightness at the peak of the histogram prepared from said plural pixels (column 25, lines 56-63).

As to claim 9, Tsujimoto discloses wherein said second parameter is the number of changes of plus/minus signs of adjacent pixels (column 8, lines 4-6 and column 30, lines 21-30).

As to claim 10, Tsujimoto discloses wherein said discriminating process discriminates the kind of said recording medium by use of a table in which said first and second parameters and the kind of said recording medium are correlated (see column 22, lines 19-38).

As to claim 11, Tsujimoto discloses wherein said discriminating process discriminates the kind of said recording medium on the basis of plural threshold values corresponding to said first parameter and said second parameter, respectively (see column 10, lines 5-10).

As to claim 12, Tsujimoto discloses wherein said plural threshold values are values determined on the basis of the distributions said first parameter and said second parameter can exhibit per kind of said recording medium (see column 10, lines 5-10).

As to claim 13, Tsujimoto discloses wherein a plain sheet and a coated sheet are discriminated on the basis of said first parameter and said second parameter (see column 4, lines 24-35).

As to claim 14, Tsujimoto discloses that the threshold value of said second parameter for discriminating a glossy film and a glossy sheet is larger than the threshold value of said second parameter for discriminated said glossy sheet and said coated sheet (see figure 36).

As to claim 15, Tsujimoto discloses wherein said step of generating the image information obtains said image information by picking up an image regarding a specific area on said recording medium (see figures 1-3).



Art Unit: 2625

As to claim 16, Tsujimoto discloses wherein said image information is either one-dimensional image information or two-dimensional image information (see column 43, lines 34-60).

As to claim 17, Tsujimoto discloses wherein if said image information generated is a two-dimensional image, said step of generating the image information converts it into one-dimensional image information (see column 43, lines 50-56).

As to claim 18, Tsujimoto discloses a method for discriminating recording medium for discriminating the kind thereof comprising the steps of: generating the image information composed by plural pixels corresponding to a specific area on the surface of a recording medium as image information indicating the surface condition of said recording medium; obtaining as a parameter the number of pixels at peak brightness in the histogram prepared by said plural pixels; and discriminating the kind of recording medium on the basis of said parameter (see column 33, lines 19-29 and column 35, lines 25-35).

As to claim 19, Tsujimoto discloses further comprising the step of obtaining a parameter related to the magnitude of the unevenness on the surface of said recording medium from the brightness information of each of said plural pixels, wherein said discriminating step discriminates the kind of recording medium on the basis of said parameter and the parameter related to the magnitude of the unevenness of the surface of said recording medium (see column 12, lines 40-57 and column 4, lines 24-35).

As to claim 20, Tsujimoto discloses a recording apparatus for recording on a recording medium conveyed by conveying means in accordance with recording data,



Art Unit: 2625

comprising: image information-generating means for generating image information composed by plural pixels corresponding to a specific area-on the surface of the recording medium, and containing the brightness information of each of said plural pixels as the image information indicating the surface condition of said recording medium conveyed by said conveying means; and discriminating means for discriminating the kind of said recording medium in accordance with a first parameter obtainable by statistical process (see column 38, lines 48-63) on the basis of said brightness information, and a second parameter obtainable with respect to the changes in said brightness information along the arrangement of said plural continuous pixels (see column 38, lines 48-63 and column 31, lines 24-42).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

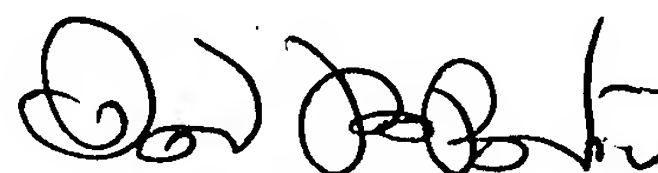
Shiratori et al. (U.S. 5,974,160) teaches measuring of gloss irregularity and printing unevenness.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dov Popovici whose telephone number is 571-272-4083. The examiner can normally be reached on Monday-Friday.

Art Unit: 2625

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Dov Popovici  
Primary Examiner  
Art Unit 2625